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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,954	12/17/2001	Marc Nowakowski	Le A 34 451	7124
7:	590 02/12/2003			
Jeffrey M. Greenman			EXAMINER	
Vice President, Patents and Licensing Bayer Corporation			BALASUBRAMANIAN, VENKATARAMAN	
400 Morgan Lane West Haven, CT 06516			ART UNIT	PAPER NUMBER
	. 00010		1624	9
		DATE MAILED: 02/12/2003		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)				
Office Action Summary							
		10/022,954	NOWAKOWSKI ET AL.				
•		Examiner Verketermen Beleeubremenien	Art Unit				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address							
	Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status							
1)	Responsive to communication(s) filed on 20 N	lovember 2002 .					
2a)⊠		s action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims							
4) Claim(s) 1-5 is/are pending in the application.							
4a) Of the above claim(s) is/are withdrawn from consideration.							
5) Claim(s) is/are allowed.							
6)⊠	6)⊠ Claim(s) <u>1-5</u> is/are rejected.						
7)	Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.							
Application Papers							
9) The specification is objected to by the Examiner.							
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12) The oath or declaration is objected to by the Examiner.							
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) ☐ All b) ☐ Some * c) ☐ None of:							
1. Certified copies of the priority documents have been received.							
	2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).							
* See the attached detailed Office action for a list of the certified copies not received.							
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
<ul> <li>a) ☐ The translation of the foreign language provisional application has been received.</li> <li>15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</li> </ul>							
Attachment(s)							
2) Notice	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s)	5) 🔲 Notice of Informal F	(PTO-413) Paper No(s) Patent Application (PTO-152)				

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## **DETAILED ACTION**

Applicants' response, which included amendment to claims 1-4, filed on 11/20/2002, is made of record.

Claims 1-5 are pending.

In view of applicants' amendment, all 112 second paragraph rejections made in the previous office action have been obviated. However the following prior art rejection remains.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niewohner et al. WO 99/24433 in view of Dale et al. Organic Process Research & Development 4, 17-22, 2000., and Knaggs et al. in Sulfonation, Kirk-Othmer Encyclopedia of Chemical Technology, 1-13, 2000 for reasons of record. To repeat:

Niewohner et al. discloses several 2-phenyl substituted imidazotriazinones, which includes compounds claimed herein for the process for making. See formula I on page 2 and note it corresponds to compound of formula I of instant claims. See page 54-55 for the process of direct chlorosulfonation of compound of formula IV which corresponds instant compound of formula II and its subsequent reaction with amine VI. See examples 14A through 17 A, wherein Niewohner et al., teaches the direct chlorosulfonation and examples 1-337 for making the final product form the chlorosulfonated product.

Instant claims differ from the reference, in reacting compound of formula II with sulfuric acid to make sulfonic acid and then convert it to the sulfonyl chloride with thionyl chloride.

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Dale et al. teaches a chlorosufonation of structurally related compound. See entire document especially page 18 and 19. Note Dale et al. teaches the potential hydrolysis of the chlorosulfonated product to sulfonic acid and therefore use of thionyl chloride to convert the sulfonic acid to chlorosulfonyl group.

Knaggs et al. teaches that sulfonation of aromatic compounds is a well known process and can be carried using sulfuric acid.

Since the primary reference teaches direct chlorosulfonation, the first secondary reference teaches conversion of sulfonic acid to chlorosulfonyl group, one having ordinary skill in the art at the time of the invention was made would have been motivated to combine both the primary and secondary references and employ the process taught by these prior art to the starting materials and reactants of the instant invention and expect to obtain the desired product because he would have expected the analogous starting materials and reactants react similarly. That is one trained in the art would have been motivated at the time of the invention to combine teachings of the primary reference and the secondary references and directly sulfonate the compound of formula II and react with thionyl chloride to make the desired chlorosulfonyl compound for further reaction with amines. It has been held that application of an old process to an analogous material to obtain a result consistent with the teachings of the art would have been obvious to one having ordinary skill. Note In re Kerkhoven 205 USPQ 1069.

Note this rejection is same as made in the previous office action. Applicants' argument to overcome this rejection is not persuasive. Following apply.

First of all applicants have not shown why it will not be obvious for one trained in the art to combine the primary reference and the first secondary reference as noted above to arrive at a sulfonation followed by chlorosufonation step.

Secondly, the fact that thionyl chloride is corrosive, toxic, and a cancer suspect applies to instant claims as well and that one may not recover thionyl chloride in the above set process has no bearing on the obviousness rejection.

Thirdly, applicants have not offered any traversal as to why one trained in the art would not be motivated to combine the references cited and practice the process.

Hence the rejection is proper and is maintained.

## Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (703)

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305-1674. The examiner can normally be reached on Monday through Thursday from

8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is

Mukund Shah whose telephone number is (703) 308-4716.

The fax phone number for the organization where this application or proceeding

is assigned (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

1235.

V. Balasubramanian

02/06/2003

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